UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Rey 1459

P O Box 1450 Alexandria, Virgima 22313-1450

NOTICE OF ALLOWANCE AND FEE(S) DUE

55694 7590 08/27/2009 DRINKER BIDDLE & REATH (DC) 1500 K STREET, N.W. SUITE 1100 WASHINGTON DC 20005-1209

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,605	03/14/2006	Hannu Mäkelä	47121-5005-00 (215693)	4277

TITLE OF INVENTION: ACCURATE POSITIONING OF AN UNMANNED MINE VEHICLE USING STATIONARY OBSTACLES

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	11/27/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FIEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where

appropriate. All further indicated unless corrects maintenance fee notifica	correspondence includir ed below or directed oth tions.	ng the Patent, advance of nerwise in Block 1, by (rders and notification of r a) specifying a new corres	naintenance fees wi pondence address;	II be m	ailed to the current (b) indicating a sepa	correspondence address as rate "FEE ADDRESS" for
CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)				Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.			
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1500 K STREET SUITE 1100		(DC)	I he Stat addi tran	reby certify that this es Postal Service wi ressed to the Mail smitted to the USPT	Fec(s) th suffi Stop IS O (571)	of Mailing or Transi Transmittal is being cient postage for firs SSUE FEE address 273-2885, on the da	deposited with the United t class mail in an envelope above, or being facsimile tte indicated below.
WASHINGTON	N, DC 20005-1209						(Depositor's name)
							(Signature)
							(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR	1.	ATTOR	NEY DOCKET NO.	CONFIRMATION NO.
10/550,605	03/14/2006		Hannu Mäkelä		47121-5	5005-00 (215693)	4277
TITLE OF INVENTION	: ACCURATE POSITIO	ONING OF AN UNMAN	NED MINE VEHICLE US	ING STATIONARY	Y OBST	TACLES	
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE	FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0		\$1810	11/27/2009
EXAM	IINER	ART UNIT	CLASS-SUBCLASS	1			
KONG, S	ZE-HON	3661	701-026000	•			
Change of corresponder CFR 1.363).	ence address or indicatio	n of "Fee Address" (37	2. For printing on the p				
	ondence address (or Cha B/122) attached.	inge of Correspondence	(I) the names of up to or agents OR, alternativ	3 registered patent vely,	attorne	ys ¹	
			(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to				
"Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Custome Number is required.			2 registered patent atto listed, no name will be	rnevs or agents. It no	o name	is 3	
3. ASSIGNEE NAME A	ND RESIDENCE DATA	A TO BE PRINTED ON	THE PATENT (print or tyr	ne)			
PLEASE NOTE: Uni	less an assignee is ident	ified below, no assignee	data will appear on the p T a substitute for filing an	atent. If an assigned	e is ide	ntified below, the do	cument has been filed for
(A) NAME OF ASSI		netion of this form is NO	(B) RESIDENCE: (CITY				
(-)			(4)			/	
			_	_			_
Please check the appropr	iate assignee category or	categories (will not be p	rinted on the patent):	Individual 🖵 Cor	poratio	n or other private gro	up entity 🗖 Government
4a. The following fee(s)	are submitted:	4	b. Payment of Fee(s): (Plea	se first reapply any	previo	ously paid issue fee s	hown above)
Issue Fee			A check is enclosed.				
Publication Fee (No small entity discount permitted) Advance Order - # of Copies			☐ Payment by credit card. Form PTO-2038 is attached. ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any				
			overpayment, to Depó	sit Account Number		(enclose ar	extra copy of this form).
5. Change in Entity Sta	tus (from status indicate s SMALL ENTITY statu		☐ b. Applicant is no lon	one claiming SMAT	UNIT	TV status Sea 27 CL	D 1 27(a)(2)
			d from anyone other than to Office.				
interest as shown by the	records of the United Sta	tes Patent and Trademark	Office.	., ,		, , ,	
Authorized Signature				Date			
Typed or printed name				Registration No			
This collection of inform an application. Confiden submitting the complete this form and/or suggesti Box 1450, Alexandria, V Alexandria, Virginia 223	nation is required by 37 C tiality is governed by 35 d application form to the ions for reducing this but 'irginia 22313-1450. DC k13-1450.	CFR 1.311. The informatic U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to the ONOT SEND FEES OR	on is required to obtain or r 1.14. This collection is est r depending upon the indiv e Chief Information Office COMPLETED FORMS TO	etain a benefit by the imated to take 12 m idual case. Any con er, U.S. Patent and T D THIS ADDRESS.	e public inutes t nments 'radema SEND	which is to file (and o complete, including on the amount of tin rk Office, U.S. Depa TO: Commissioner f	by the USPTO to process) g gathering, preparing, and ne you require to complete atment of Commerce, P.O. for Patents, P.O. Box 1450,

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.



UNITED STATES PATENT AND TRADEMARK OFFICE

NITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Offic Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

DATE MAILED: 08/27/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,605	03/14/2006	Hannu Mäkelä	47121-5005-00 (215693)	4277
55694	7590 08/27/2009		EXAMINER	
DRINKER BID	DLE & REATH (DO	2)	KONG, S	ZE-HON
1500 K STREET	, N.W.	•	ART UNIT	PAPER NUMBER
SUITE 1100 WASHINGTON	DC 20005-1209		3661	

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 346 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 346 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 (571)-272-4200.

Notice of Allowability

Application No.	Applicant(s)	_
10/550.605	MÄKELÄ, HANNU	
Examiner	Art Unit	_
SZF-HON KONG	3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address-All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.33 and MPEP 1308.

- This communication is responsive to 6/4/2009.
- The allowed claim(s) is/are 1-15.
- 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☑ All b) ☐ Some* c) ☐ None of the:
 - 1. A Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No. _____
 - Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- 5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) \square including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - The reto or 2) to Paper No./Mail Date ____.

 (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of

Paper No./Main Date ______.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

 DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

- Attachment(s)
 1. ☑ Notice of References Cited (PTO-892)
- Notice of Draftperson's Patent Drawing Review (PTO-946).
- 3. Information Disclosure Statements (PTO/SB/08),
- - of Biological Material
- 5. Notice of Informal Patent Application
- Interview Summery (PTO-413).
 Paper No./Mail Date
- 7. Examiner's Amendment/Comment
- 8.

 Examiner's Statement of Reasons for Allowance
- 9. Other ____.
 /Thomas G. Black/

Supervisory Patent Examiner, Art Unit 3661

/SZE-HON_KONG/

Examiner, Art Unit 3661